

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014789**Date Inspected:** 12-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Guo Yen Fei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Bay 9, Bay 12**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

Bay 9, Gantry 2

DP 3152 – 001 (PL 3348A, PL 3348B, PL 3348C)

This Inspector performed In- Process inspections of production welding of deck panels in Bay 9. Welding was being performed on panel DP 3152 – 001 (PL 3348A, PL 3348B, PL 3348C) .The weld procedure was found to be WPS-B-T-2342-U1-(U-rib)-5. The welding operators were identified as follows:

Weld 1, Weld 138, Weld 176 – 059378

Weld 2, Weld 139, Weld 177 – 203805

Weld 3, Weld 173, Weld 178 – 059378

Weld 4, Weld 174, Weld 179 – 203805

Weld 5, Weld 141, Weld 180 – 201788

Weld 6, Weld 140, Weld 181 – 059416

ZPMC and ABF QC were present during the welding process and identified as Zhu Zhong Jie and Cao Hai Zhou

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respectively. The ZPMC CWI was present during the welding process and identified as Guo Yanfei.

During FCAW root welding process, the welding parameters were verified by this inspector and were as follows:

Head 3, Weld 1, 138, 176 - 369 Amps, 30.5 Volts

Head 4, Weld 2, 139, 177 - 373 Amps, 30.5 Volts

Head 3, Weld 3, 173, 178 - 372 Amps, 30.8 Volts

Head 4, Weld 4, 174, 179 - 369 Amps, 30.3 Volts

Head 5, Weld 5, 141, 180 - 368 Amps, 30.0 Volts

Head 6, Weld 6, 140, 180 - 371 Amps, 30.0 Volts

DP 3144 – 001 (PL 3340A, PL 3340B, PL 3340C)

This Inspector performed In- Process inspections of production welding of deck panels in Bay 9. Welding was being performed on panel DP 3144 – 001 (PL 3340A, PL 3340B, PL 3340C). The weld procedure was found to be WPS-B-T-2342-U1-(U-rib)-5. The welding operators were identified as follows:

Weld 1, Weld 236, Weld 244 – 059421

Weld 2, Weld 234, Weld 243 – 059418

Weld 3, Weld 235, Weld 242 – 059378

Weld 4, Weld 233, Weld 241 – 203805

Weld 5, Weld 232, Weld 240 – 059378

Weld 6, Weld 230, Weld 239 – 203805

Weld 7, Weld 231, Weld 238 – 201788

Weld 8, Weld 229, Weld 237 – 059416

ZPMC and ABF QC were present during the welding process and identified as Zhu Zhong Jie and Cao Hai Zhou respectively. The ZPMC CWI was present during the welding process and identified as Guo Yanfei.

During FCAW root welding process, the welding parameters were verified by this inspector and were as follows:

Head 1, Weld 1, 145 - 372 Amps, 31.0 Volts

Head 2, Weld 2, 146 - 373 Amps, 31.0 Volts

Head 3, Weld 3, 147 - 372 Amps, 31.1 Volts

Head 4, Weld 4, 148 - 369 Amps, 30.7 Volts

Head 3, Weld 5, 149 - 372 Amps, 31.3 Volts

Head 4, Weld 6, 150 - 369 Amps, 31.4 Volts

Head 5, Weld 7, 151 - 368 Amps, 31.5 Volts

Head 6, Weld 8, 152 - 371 Amps, 31.3 Volts

Travel speed for weld pass 1 was 528mm/min

Travel speed for weld pass 2 was 526mm/min

Bay 12

No relevant work observed

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This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QA Inspector observed no rejectable indications at the time of testing. Weld identification numbers were

TR6C – PP68 – 004, 005

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dsouza,Christopher	Quality Assurance Inspector
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<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer
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